

XXIX.—On new Species of Histeridæ and Notices of others.
By G. LEWIS, F.L.S.

List of Species.

Placodes opacus.	Hister meridanus.
Platylister mirabilis.	—— lævimargo.
Platysoma sulcisternum.	—— planimargo.
Phehister illustris.	—— cinctipygus.
—— festivus, <i>Lew.</i>	—— terræmotus.
—— chapadæ.	—— sessilis, <i>Lew.</i>
Omalodes felix.	—— pinnulæ.
—— striatipectus.	—— vacillans.
—— sinuaticollis, <i>Mars.</i>	Epiurus fœderatus.
Hister congonis.	Tribalus amnicola.
—— Holubi, <i>Sch.</i>	Sternocœlis ovalis.
—— sinuosus.	Saprinus amethystinus.
—— gibberosus.	

Placodes opacus, sp. n.

Oblongus, convexiusculus, opacus, niger, rugoso-punctissimus; fronte stria biarcuata; pronoto stria marginali obsoleta, laterali in angulo desinente, interstitio 4-punctato; elytris striis indistinctis; propygidio pygidioque grosse et dense punctatis; prosterno haud striato; mesosterno profunde inciso, antice immarginato.

L. $15\frac{1}{2}$ mill.

Oblong, somewhat convex, opaque, black; the head, frontal stria complete and biarcuate, but somewhat obscured by the rough sculpture behind the stria, on either side is a coarse dense punctuation, which does not, however, close in at the base; the thorax is wholly punctured, punctures coarse at the side, marginal stria scarcely noticeable, lateral stria ceases behind the eye and is not conspicuously deep, the interstice has four rather small punctures set at equal distances along it; the elytra densely rugose and the striæ obscurely marked, two humeral and six dorsal, all apparently complete, but only just traceable along the punctate surface, 3, 4, 5, and sutural punctiform; the propygidium and pygidium are very coarsely and densely punctate; the prosternum, keel without striæ, rather densely punctate at the base and between the coxæ, anterior lobe somewhat similarly punctured, intervening area with sparser punctures, on either edge of the keel before the coxæ is a small but distinct fovea; the mesosternum is deeply incised anteriorly and faintly marginate at the sides only; the anterior tibiæ have two broad teeth, intermediate widely emarginate on the outer edge at the tarsal end and terminating in a rather acute tooth.

This species in its opacity and surface-sculpture is similar to *Psiloscelis Harrisii*, Lec.; it is rather more oblong than *Placodes caffer*, Er.

Hab. Kniin, French Congo (*Mocquerys*, 1892). One example.

Platylister mirabilis, sp. n.

Oblongus, subdepressus, niger, nitidus; fronte concava, stria bisinuata utrinque interrupta; clytris striis dorsalibus 1-3 integris, 4 in medio subinterrupta, 5-6 apicalibus; pygidio dense ocellato-punctato; mesosterno stria late interrupta; tibiis intermediis in medio bispinosis, posticis unispinosis.

L. 11 mill. (absque mandibulis).

Oblong, somewhat depressed, black and shining; the head finely punctured, anteriorly with the epistoma concave, transverse stria not deeply impressed, bisinuous, and not reaching the edge on either side; mandibles robust, each with two teeth on the inner edge, left mandible concave at the base; the thorax transverse, marginal stria very fine and sinuous behind the middle, lateral stria deep at the sides, especially behind the anterior angle, complete behind the head and at the base it is continued round the angle to a point opposite the base of the third dorsal stria, scutellar fovea small but very distinct; the elytra, lateral margin with two fine and complete striæ, both strongly and similarly sinuous in the middle; dorsal striæ, 1-3 complete, rather wide but shallow, 2 bent at the base towards 3, 4 less marked than the third and evanescent before the middle, 5 apical and not reaching the middle, 6 shorter and partly punctiform, the only humeral stria visible is an oblique stria at the base which is very fine; the propygidium has shallow ocellate punctures, somewhat irregular and rather closely set, the posterior margin is smooth; the pygidium has similar punctures, but they are more evenly and more closely set, and the posterior margin is slightly raised and smooth; the prosternum is finely punctulate and its anterior lobe is margined by a semicircular well-marked stria; the mesosternum is emarginate and the striæ are lateral only and not close to the edge; the anterior tibiæ are 4-dentate, intermediate with two teeth close to the tarsi and two very distinct near the middle on the outer edge, posterior has two tarsal teeth and one acute spine behind the middle on the outer edge.

Except the large size of this species and its peculiar tibial spines, I cannot find any characters to separate it generically from *Platylister ovatus*, Er.

Hab. Khasia Hills.

Platysoma sulcisternum, sp. n.

Oblongo-ovatum, depressiusculum, nigrum, nitidum; fronte punctulata, stria utrinque semicirculari; pronoto stria integra; elytris striis 1-3 integris, 4 vix dimidiata; pygidio convexo, punctulato; prosterno lobo anteriori utrinque sulcato; mesosterno marginato; tibiis anticis 5-dentatis.

L. $3\frac{1}{2}$ - $4\frac{1}{4}$ mill.

Oblong-oval, rather depressed, black and shining; the head is impressed in the middle behind the clypeus, labrum narrowly transverse, with the suture angulate in the middle, surface punctulate, stria sometimes broken (when complete it is transversely bent towards the neck) and is semicircular over the eyes; the thorax is also punctulate, arched at the sides, stria complete and formed laterally like that of *P. confucii*, Mars., but the margin is less broad; the elytra, oblique humeral stria very fine, humeral and subhumeral wanting, 1-3 dorsal complete, 4 apical, straight, and nearly reaching the middle, the rest wanting; the propygidium and pygidium are distinctly but not very densely punctulate, the latter is convex and without a rim; the prosternum, anterior lobe punctulate, with a well-marked rather deep stria or sulcus on either side, leaving a fairly wide margin (fig. 1); the keel

Fig. 1.



Platysoma sulcisternum, Lew.

appears impunctate except under the microscope; the mesosternum is sinuous behind the keel, with a sinuous stria which at the lateral angles is somewhat distant from the edge; the anterior tibiæ are 5-dentate.

In its general outline this species agrees best with *P. completum*, Mars., especially in the shape of the thorax, but it is more oblong and less convex.

Hab. Sydney, Australia (*A. M. Lea*). Six examples.

Phelister illustris, sp. n.

Ovalis, convexus, subtus cyaneo-niger, nitidus; fronte leviter excavata, stria late interrupta; pronoto stria marginali integra,

lateribus punctatis; elytris violaceis vel purpureis, striis dorsalibus 1 et 4 parum abbreviatis, 2-3 suturalique integris; prosterno bistriato; mesosterno marginato, stria transversa nulla; tibiis anticis 4-dentatis.

L. $2\frac{2}{3}$ mill.

Oval, convex, body and legs blue-black; head cyaneous; thorax and elytra rich dark violet, changing to purple in certain lights; the head moderately excavated, striate over the eyes only, punctuation much scattered; the thorax with a distinct impression behind the anterior angle, stria complete, punctate on the lateral border, with finer points extending towards the disk and gradually becoming less dense, scutellar puncture minute; the elytra, striæ, outer humeral wanting, inner very short, basal, but clear, 1 shortened well before the apex, 2-3 complete and almost joining apically, 4 a little longer than the first, 5 wanting, sutural complete and parallel to the suture, apical border sparsely punctured; the propygidium is clearly but sparsely punctured, the punctures are chiefly at the base; the pygidium is very minutely punctured and the points are more evenly scattered; the prosternum is rather wide, keel impunctate, anterior lobe with a few scattered punctures, bistriate, striæ diverging at either end, but widening out most anteriorly; the mesosternum, marginal stria rather fine, posterior suture visible, but there is no transverse stria; the first abdominal segment has a conspicuous bent stria on either side; the tarsi are dull brown and the anterior tibiæ are 4-dentate, the two central teeth are widest apart.

Most of the brightly coloured species of this genus are not convex; but this and *P. varicolor*, Mars., are the two exceptions known at present.

Hab. Brazil (*ex coll. Barton*).

Phelister festivus.

Epiurus festivus, Lew. Ann. & Mag. Nat. Hist. ser. 7, vol. ii. p. 171 (1898).

By an oversight I omitted in my description to refer to the tibiæ of this species. The anterior tibiæ are 3-dentate, the two nearest to the tarsi are somewhat close together, the third is further apart; this form of the tibia and the somewhat curved tarsal grooves show that it belongs to the genus *Phelister*.

Phelister chapadæ, sp. n.

Orbicularis, convexiusculus, niger, nitidus, supra punctulatus; antennis pedibusque rufis; fronte impressa stria late interrupta;

pronoto lateribus punctato, stria marginali integra; elytris striis dorsalibus 1-3 integris, 4-5 apicalibus, suturali obliqua basi abbreviata; prosterno haud striato; mesosterno bistriato; tibiis anticis 4-5-dentatis.

L. $3\frac{1}{8}$ mill.

Orbicular, somewhat convex, black and shining, surface above finely punctulate; the head is similar in form and sculpture to that of *P. 4-punctulus*, Mars., but the epistoma and mandibles are longer; the thorax is transverse, more than twice as broad as long, marginal stria fine and complete, the lateral border is distinctly punctured, scutellar puncture well-marked, basal edge irregularly punctured; the elytra, striæ, subhumeral absent, inner humeral very fine and oblique, dorsal 1-3 strong and complete, 4-5 apical, coequal, and not quite reaching the middle, sutural shortened anteriorly for about a quarter of the elytral length, somewhat oblique and gradually becoming closer to the suture towards the apex; the propygidium is punctured like the thoracic border and is faintly impressed on either side behind; the pygidium, the basal half is punctured and the apical half is smooth; the prosternum is without striæ and widens out very sharply at the base; the mesosternum, anterior stria marginal and parallel to the edge, second stria transversely arched and it is clearly anterior to the meso-metasternal suture, and it continues laterally (irregularly crenulate) to the base of the metasternum; the anterior tibiæ are 4-5-dentate.

The above belongs to the same section of the genus as *P. 4-punctulus*, Mars., and others, but its stature and relatively greater breadth render it conspicuously different.

Hab. Chapada, Matto Grosso (*H. H. Smith*). One example.

Omalodes felix, sp. n.

Ovatus, convexiusculus, niger, nitidus; fronte clypeoque dense punctatis, illo in medio profunde sulcata; pronoto leviter 4-foveolato, lateribus dense punctatis; elytris striis 1-2 integris, 3 in medio interrupta et postice punctis formata; propygidio pygidioque dense punctatis; prosterno haud striato; mesosterno stria marginali late interrupta; tibiis anticis 5-dentatis.

L. $9\frac{1}{4}$ mill.

Oval, slightly convex, black and shining; the head with the clypeus and mandibles densely but not very coarsely punctured, stria complete, the median sulcus similar but wider than that figured for *O. angulatus*, Mars. (Mon. 1853,

t. xv. fig. 3e); the thorax laterally is densely, not coarsely punctured, with two shallow foveæ on either side well behind the anterior border, innermost fovea is in a line behind the eye, the smaller and outer is between it and the lateral margin, there is a fine marginal stria which ceases behind the eye and posteriorly is not visible from above on the basal half of the thoracic length, the lateral stria is well-marked and anteriorly is bent on either side behind the eyes and is slightly angulate behind the middle of the neck, the scutellar puncture is minute and surrounded by a shallow depression; the scutellum is small and has a median puncture; the elytra, striæ, outer humeral is faintly seen before the middle, inner is broken in the middle and somewhat irregular in its course, 1-2 dorsal rather deep and complete, 3 broken in the middle and then continued to the apex by a line of punctures; the propygidium and pygidium are coarsely punctate, the first with two posterior impressions; the prosternum and mesosternum are minutely punctured, the second has a short bent stria on either side; the anterior tibiæ are 5-dentate, the apical tooth being bifid at the apex.

The outline of this species agrees with that of *Psiloscelis Harrisii*, Lec., a form not seen in any other species known to me.

Hab. Central Argentina.

Omalodes striatipectus, sp. n.

Ovatus, latus, subconvexus, niger, nitidus; fronte punctata in medio foveolata; pronoto lateribus punctato; elytris striis 1-2 integris, 3 abbreviata; pygidio profunde punctato; prosterno punctato et distincte bistriato.

L. $9\frac{1}{2}$ mill.

Oval, rather broad, somewhat convex, black and shining; the head distinctly and rather closely punctured, also the clypeus and the labrum, stria complete but a little irregular, vertex with a well-defined fovea; the thorax has a lateral band of punctures, lateral stria rather strong, especially at the anterior angles, and continued behind the head, anterior angles rather pointed; the elytra, dorsal striæ, 1-2 complete but punctiform at the apex, 3 extremely fine, basal and dimidiate; the propygidium bifoveolate, somewhat sparsely punctate, especially on the disk; the pygidium very evenly and wholly punctate, punctures very clear and larger than those of the propygidium and fairly closely set; the prosternum is evenly, not densely nor coarsely punctured, keel clearly bistrate, striæ widening out at the coxæ but not continuing round the

base ; the mesosternum is emarginate, with a curved stria on either side, and the spaces before and behind the striæ are punctate ; the anterior tibiæ 5-dentate.

The striæ on the prosternal keel are well-marked and complete and are a good distinguishing character for the species, which in outline corresponds with *O. grossus*, Mars.

Hab. Rio Cachiyacu, Iquitos (*Stuart*, 1893).

Omalodes sinuaticollis, Mars.

This species has two conspicuous foveæ in the elytra at the base of the third dorsal stria. I believe the type of this species came to me in the Chevrolat collection ; in it the pin pierces the fovea on one side, and probably Marseul thought the fovea on the other accidental. I have received fresh specimens lately from Mr. H. H. Smith taken at Rio Janeiro.

Hister congonis, sp. n.

Breviter ovalis, depressiusculus, niger, nitidus ; fronte punctulata, antice foveolata, stria transversa utrinque deflexa tenuiter impressa ; thorace stria externa abbreviata, interna integra ; elytris striis 1-3 integris, 4 basi evanescenti, suturali basi abbreviata ; pygidio vix dense punctato, postice marginato ; tibiis anticis 4-dentatis.

L. vix 6 mill.

Shortly oval (elytra wider than the thorax and widest behind the shoulder), somewhat depressed, black and shining ; the head punctulate and foveolate anteriorly, stria fine and nearly straight across the fovea, and then it is markedly deflected on either side, in front of each eye there is a remarkable obtuse projection, mandibles are concave above, with a very robust tooth on the inner edge, labrum is transverse and semicircular on the anterior edge ; the thorax is transverse, widest at the base, marginal stria ceasing behind the eye, outer lateral is somewhat hamate at the anterior angle and posteriorly it reaches a little beyond the middle, inner lateral is strong at the sides, slightly sinuous, and it is much nearer the edge behind the neck than behind the angles ; the elytra, striæ, inner humeral is deep and apical and reaches beyond the middle, apically it nearly joins the first dorsal, dorsal 1-3 complete, 4 evanescent at the base and rather fine, 5 dimidiate, sutural well shortened at the base and bending away from the suture before and behind ; the propygidium is not closely punctured and the points vary in size, those on either side are the largest, some are very minute ; the

pygidium is evenly, almost densely, set with larger punctures, and there is a granulate surface between the punctures which may be seen under the microscope, posteriorly there is a smooth narrow rim; the prosternum is narrow, anterior lobe punctulate and bordered laterally with two striæ; the mesosternum is almost truncate, with a marginal stria which continues along the sides of the metasternum; the anterior tibiæ are 4-dentate.

Hister circulus, Sch., and *H. circularis*, Lew., somewhat resemble this species in general facies. The ocular projections resemble those of certain *Hololeptæ*, and they are seen but are very minute in *H. circularis*.

Hab. Lokolela, Congo River (*J. A. Clark*).

Hister Holubi, Sch.

Hister Holubi, Sch. Deutsche ent. Zeitschr. p. 153 (1889).

Mr. Guy A. K. Marshall has sent me a series of this species found at Salisbury in Mashonaland among rotten horns and hoofs. Mr. Marshall says:—"I was pleased in being able to ascertain the reason of its presence there; I find that it lives on the larvæ of the large horn-destroying 'micro' *Tinea vestella*, L., for on several occasions I captured the beetles in the act of devouring the larvæ, and they are, as a rule, chiefly found in the larval cases."

Hister Holubi is somewhat like a species of *Pachycærus* in outline, and I give a figure (fig. 2) to show the striæ of the prosternal lobe. In several African species the lobe is similarly bistriate.

Fig. 2.



Hister Holubi, Sch.

Hister sinuosus, sp. n.

Ovalis, convexus, niger, nitidus; fronte minutissime punctulata, stria irregulariter impressa; pronoto stria interna valida sinuata, margine laterali elevato, post angulos sinuato; clytris striis 1-3 integris, 4-5 et suturali abbreviatis; propygidio pygidioque leviter, haud dense, punctulatis; tibiis anticis 5-dentatis.

L. $4\frac{1}{2}$ mill.

Oval, convex, black and shining, with a very minute and sparse punctuation; the head, frontal stria somewhat irregular but complete; the thorax is thickened laterally between the marginal and inner stria, and the edge is distinctly sinuous behind the anterior angle, marginal stria fine and only seen from above at and near the anterior angle, inner lateral is strong and rather widely sinuous in the middle, and continues behind the head, where it is somewhat crenulate and fine, the scutellar puncture is small but clear; the elytra, striæ, outer humeral is faintly crenulate, bending inward towards the apex, inclining outward anteriorly, and shortened before the base, inner humeral wanting, but there is a short basal oblique stria joined to the first dorsal, 1-3 dorsal complete, 4 finer and reaching just beyond the middle, 5 shorter, sutural nearly as long as the fourth; the propygidium and the pygidium are clearly, rather finely, and not closely punctured; the prosternum is without striæ, the surface (and that of the mesosternum) is microscopically strigose, and the anterior lobe is conspicuously margined with a strong stria or sulcus, which is nearest the edge at the apex; the mesosternum is widely sinuous, with the marginal stria complete; anterior tibiæ 5-dentate.

Hister relictus, Mars., which has been likened to the European *corvinus*, Germ., and *H. cognatus*, Lec., and *H. marginicollis*, Lec., all somewhat resemble the above species, but the pygidia of these species are densely punctate.

Hab. Texas. Taken by the late Mr. Julius Flohr in the winter of 1893. I have only one example, but it is probable there are more in the museum in Berlin, to which institution Mr. Flohr left his collections.

Hister gibberosus, sp. n.

Ovalis, convexiusculus, niger, nitidus; fronte stria valida, supra oculos angulata; elytris striis 1-3 validis integris, 4 leviter impressa completa, 5 et suturali apicalibus; propygidio bi-impresso, grosse et dense punctato; pygidio bilobo, neonon grosse punctato; prosterno bistriato, striis antice et postice junctis; tibiis anticis 4-dentatis.

L. $5\frac{1}{2}$ mill.

Oval, somewhat convex, black and shining; the head is feebly bi-impressed behind the frontal stria, stria strong, sinuous behind the mandibles, deep and angulate over the eyes, and continues transversely along the base of the head; the thorax, the marginal stria is fine and most conspicuous at the anterior angle, lateral stria ceases anteriorly behind the eye, inner

stria complete and the interstice between it and the lateral stria is rather broad, only narrowing at the base; the elytra, striæ 1-4 complete, 1-3 strong and rather wide, 4 finer, 5 and sutural apical, short and broken, humeral striæ absent; the propygidium is coarsely and thickly punctate, with a rather wide impression on either side; the pygidium is also coarsely punctate, with a gibbosity on either side near the base (resembling *H. coronatus*, Mars., in this character); the prosternum, anterior lobe with scattered shallow punctures, keel bistriate, striæ joining before and behind, are rather fine and before the coxæ sinuous; the mesosternum is slightly sinuous behind the keel of the prosternum, marginal stria rather fine and crenulate; the metasternum has a similar stria which follows the sutural line and widens out laterally behind; anterior tibiæ 4-dentate, apical tooth bifid.

This species must be placed in the American series close to *H. nodatus* and *bullatus*, Lew., and near to *H. coronatus*, Mars., which it resembles in the form of its pygidium.

Hab. Mexico (*J. Flohr*). One example.

Hister meridanus, sp. n.

Breviter ovalis, convexus, niger, nitidus; fronte stria valida; pronoto stria externa dimidiata, interna integra; elytris striis 1-4 integris, 5 brevissima, suturali utrinque abbreviata; propygidio pygidioque dense et grosse punctatis, hoc leviter bilobo; prosterno bistriato, striis postice et antice conjunctis; tibiis anticis 5-6-dentatis.

L. $4\frac{1}{3}$ mill.

Rather shortly oval, convex, black and shining; the head very finely, not densely punctulate, stria rather strong, arched anteriorly, angulate above the eyes, and joining a transverse stria before the neck; the thorax, marginal stria very fine, visible above at the anterior angles, outer lateral stria ceases behind the eye and continues halfway down the lateral edge, inner is complete and slightly crenulate, especially behind the anterior angles, the basal edge is punctate, but the points do not reach the scutellar region; the elytra, dorsal striæ, 1-4 complete, 5 apical and very short, sutural much shortened in front and a little shortened behind; the propygidium and pygidium are densely and coarsely punctate, the former is impressed on either side behind, the latter is slightly bilobed; the prosternum, anterior lobe margined with a fine stria and has large shallow conspicuous punctures, keel bistriate, striæ clearly joined before and behind and are widely sinuous in the middle; the mesosternum is feebly sinuous in

front, with a complete marginal stria; the metasternum also has a somewhat similar and independent stria, but the stria is without the sinuosity; the first abdominal segment has a well-marked lateral stria; the anterior tibiæ are armed with two strong teeth, the apical one bifid, and three small ones behind.

Hister meridanus may be associated with *H. nodatus* and *H. gibberosus*, Lew.

Hab. Yucatan (*Donckier*). Two examples.

[To be continued.]

XXX.—*On the Absence of Regeneration in the Posterior Limbs of the Orthoptera saltatoria and its probable Causes.*
By EDMOND BORDAGE*.

UP to the present opinions have been divided with regard to the regeneration of the posterior limbs of the Orthoptera saltatoria. Among naturalists denying the possibility of such regeneration I may mention Heineken, Graber, Durieu, Frédéricq, Contejean, Werner, and Peyerimhoff. Among those who admit it I may mention Professor Griffini (of Turin).

In the attempt to settle this debated question I undertook a very large series of experiments upon representatives of three families of Orthoptera saltatoria, choosing for my subjects *Phylloptera laurifolia* and *Conocephalus differens* among the Locustidæ, *Acridium rubellum* among the Acrididæ, and *Gryllus capensis* among the Gryllidæ.

The experiments in question have led me to the conclusion that regeneration of the jumping-legs does not take place. I have, in fact, not been able to find the least trace of regenerative power.

Here is a fact which at first sight seems to be contrary to the law of Lessona, for the jumping-legs are those which are most exposed to injury by enemies, and can be detached from the body by self-mutilation as a means of escape, as well as *in casting the skin* [*exuvial self-mutilation*]. We shall see, however, that this case by no means forms an exception to the law of the celebrated Italian biologist.

I have in fact been able to note with regard to larvæ kept in captivity how difficult the moults became after the loss of

* Translated from 'Comptes Rendus,' cxxix. (July 10, 1899) pp. 120-123, by Wilfred Mark Webb, F.L.S. From a separate impression communicated by the Author.